

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

PPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
10/810,772	03/26/2004	Andrew Slark	3080.BDG	9608
7590 05/11/2006		EXAMINER		
Charles W. Almer			NILAND, PATRICK DENNIS	
National Starch and Chemical 10 Findeme Avenue			ART UNIT	PAPER NUMBER
Bridgewater, NJ 08807			1714	
			DATE MAILED: 05/11/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
Office Astion Comment	10/810,772	SLARK ET AL.				
Office Action Summary	Examiner	Art Unit				
	Patrick D. Niland	1714				
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the c	orrespondence address				
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim will apply and will expire SIX (6) MONTHS from , cause the application to become ABANDONEI	L. sely filed the mailing date of this communication. O (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on	Responsive to communication(s) filed on					
2a) This action is FINAL . 2b) ⊠ This						
3) Since this application is in condition for allowar	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under E	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims						
4)⊠ Claim(s) 1-19 is/are pending in the application.	4)⊠ Claim(s) 1-19 is/are pending in the application.					
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-19</u> is/are rejected.						
7) Claim(s) is/are objected to.	Claim(s) is/are objected to.					
8) Claim(s) are subject to restriction and/o	8) Claim(s) are subject to restriction and/or election requirement.					
Application Papers						
9) The specification is objected to by the Examiner.						
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 						
Attachment(s) 1) ☑ Notice of References Cited (PTO-892) 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☑ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/05.	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal Po 6) Other:					

Art Unit: 1714

- 1. Claims 7-12 and 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- A. The instant claims 9-12 recite improper Markush group language. See MPEP 2173.05(h). It is therefore unclear what is encompassed by the claimed Markush groups.
- B. Claims 15-17 provide for the use of the composition of claim 1, but, since the claims do not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 15-17 are is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

- C. The instant claims 7-8 recite amounts in "% (w/w). It is unclear what is intended by "(w/w)". It is further unclear if the percentage is based on the entire composition of claim 1 including those components encompassed by "comprising", only the recited components, one of the individual components, or some other basis.
- D. The instant claims 7-8 do not end in a period as required. It is therefore unclear what else might be included in these claims.
- E. It is unclear what is intended by "improvement" in claim15. Are the values for the claimed parameters to be lowered, raised, or changed relative to some unspecified standard?

- F. The term "low" in claim 16 is a relative term which renders the claim indefinite.

 The term "low" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is therefore unclear what the scope of "low" is relative to the two parameters it modifies.
- 2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1, 9-15, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5001210 Coury et al..

Coury discloses mixing dihydroxyurethanes made from cyclic carbonates and polyamines which fall within the scope of the instantly claimed "urethane diols" and polyisocyanates which are thermoplastic prior to their reaction and therefore capable of being used as a "reactive polyurethane hot melt adhesive" on some substrate. These mixtures, prior to their reaction, fall within the scope of the instantly claimed compositions. See the abstract; column 1, lines 16-30; column 2, lines 40-68; column 3, lines 1-37; column 5, lines 4-47, particularly 15-25 and 38-47 which prior to reaction falls within the scope of the instantly claimed compositions because the

Art Unit: 1714

compositions are meltable and useful as adhesive, and lines 50-68; column 6, lines 1-4, which prior to reaction falls within the scope of the instantly claimed compositions because the compositions are meltable and useful as adhesive; and the remainder of the document. It is not seen that the method step of the instant claim 14 differentiates the claimed composition from that of the patentee. The patentee mixes the components of claim 1 which appears to fall within the scope of the method of the instant claim 15. Since the instantly claimed components are mixed together the claimed open time and/or green strength improvements must be met. The adhered articles inferred from the patentee's recitation to use the above compositions as adhesives falls within the scope of the instant claim 19.

5. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1378531 A1 Kesselmayer in view of US Pat. No. 5001210 Coury et al..

Kesselmayer discloses hot melt adhesives containing polyol, polyisocyanate, and acrylic polymer, which falls within the scope of the instant claims 4-5, at the abstract; page 2, lines 25-43, which encompasses the instantly claimed method steps, and lines 45-58; page 3, lines 1-14 of which lines 8, 10-11, and 13-14 encompasses the instantly claimed urethane diols and lines 11-13 encompasses their use with the polyols of the instant claims 2-3. It would have been obvious to one of ordinary skill in the art to use the instantly claimed urethane diols as the polyol of Kesselmayer because they are encompassed by the above noted sections of Kesselmayer and they would have been expected to give the benefits of such urethane diols to adhesives as taught throughout Coury et al.. Where the larger amounts of acrylic polymer of page 10, lines 15-18 are used, the amounts of the instant claims 7-8 are met if the second w is for the weight of the entire composition. It is not seen that the method step of the instant claim 14 differentiates the claimed

composition from that of the above references. The references mix the components of claim 1 which appears to fall within the scope of the method of the instant claim 15. Since the instantly claimed components are mixed together the claimed open time and/or green strength improvements must be met. It would have been obvious to one of ordinary skill in the art to use the instantly claimed tackifying resins of claim 6 because they are well known for use in hot melt adhesives and they would have been expected to give the property which their name defines to the adhesives of the above cited prior art.

6. Claims 1-8 and 13-19 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. Application Publication US 2002/0164486 A1 Guse et al..

Guse et al. discloses the instantly claimed hot melt adhesives at the abstract; sections [0014][0040], particularly sections [0033] which discloses polyurethane diols which falls within the
scope of the instantly claimed urethane diols with sufficient specificity so as to anticipate the use
of the instantly claimed urethane diols particularly given Guse's preference for diols and the low
amount of picking and choosing required to choose polyurethane diols. Seections [0027] and
[0034] fall within the scope of the instant claims 7-8. Section [0033] encompasses mixtures of
the urethane diols with the polymers of the instant claims 2-5. The resins of section 0040] are
tackifying resins. It is not seen that the method step of the instant claim 14 differentiates the
claimed composition from that of the above reference. The reference mixes the components of
claim 1 which appears to fall within the scope of the method of the instant claim 15. Since the
instantly claimed components are mixed together the claimed open time and/or green strength
improvements must be met. The adhesive method of the reference falls within the scope of the

instant claims 15-18 and the resulting article falls within the scope of the instant claim 19. See sections [0057]-[0106] and claim 30.

7. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. Application Publication US 2002/0164486 A1 Guse et al. in view of US Pat. No. 5001210 Coury et al..

Guse et al. discloses the instantly claimed hot melt adhesives at the abstract; sections [0014][0040], particularly sections [0033] which discloses polyurethane diols which falls within the
scope of the instantly claimed urethane diols with sufficient specificity so as to anticipate the use
of the instantly claimed urethane diols particularly given Guse's preference for diols and the low
amount of picking and choosing required to choose polyurethane diols. Seections [0027] and
[0034] fall within the scope of the instant claims 7-8. Section [0033] encompasses mixtures of
the urethane diols with the polymers of the instant claims 2-5. The resins of section 0040] are
tackifying resins. It is not seen that the method step of the instant claim 14 differentiates the
claimed composition from that of the above reference. The reference mixes the components of
claim 1 which appears to fall within the scope of the method of the instant claim 15. Since the
instantly claimed components are mixed together the claimed open time and/or green strength
improvements must be met. The adhesive method of the reference falls within the scope of the
instant claims 15-18 and the resulting article falls within the scope of the instant claim 19. See
sections [0057]-[0106] and claim 30.

It would have been obvious to one of ordinary skill in the art to use the instantly claimed combinations of ingredients in the instantly claimed methods to form the instantly claimed articles from the disclosure of Guse because Guse encompasses the use of the instantly claimed

Application/Control Number: 10/810,772 Page 7

Art Unit: 1714

combinations of ingredients in the instantly claimed methods to form the instantly claimed articles in the sections cited above and these adhesives would have been expected to give the properties described by Guse.

It would have been obvious to one of ordinary skill in the art to use the urethane diols of the instant claims 9-12 as the polyol of Guse because they are encompassed by the above noted sections of Guse and they would have been expected to give the benefits of such urethane diols to adhesives as taught throughout Coury et al..

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Primary Examiner
Art Unit 1714